

# HOYA NEW



**Hoya darwinii subsp. mabilogensis Kloppenburg & Mendoza GM #106**  
**Unpublished**

**Oh There it is !**  
A pdf publication devoted to the Genus  
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**Editor: Dale Kloppenburg**  
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When a species is collected from the wild, I feel it is wise to identify it, propagate it and name it. In this way it will eventually get it into commercial channels, be distributed to all those interested in this genus and thus be preserved. If in the future the species is lost through natural causes or forest destruction it will still be here on earth in your collection.

The following new species are presented in PDF format with ISSN number. Check posting on my website "<http://hoyardk.wix.com/Kloppenburg>" under publications.

1. ***Hoya odorata* subsp. *rizaliana* Kloppenburg 2019**
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## ***Hoya odorata* subsp. *rizaliana* Kloppenburg 2019**

***Hoya odorata* subsp. *rizaliana* Kloppenburg** subsp. nova, holotypus UC #14519. Collected by A. Loher at Rizal, Luzon, Philippines. May 1916. (Roll #41 8/11/89). This subsp. has pollinia measurements differing from all other subsp. Also the corolla and corona are different among other differences. See details following:

**Pedicel:** 1.6 cm long, very filamentous, glabrous.

**Calyx:** Turns backward on drying, wide membranous, obtuse, apex edges sparsely ciliate, 0.13 cm long and 0.07 cm wide at the widest.. ligules present.

**Ovaries:** columnar, long, 0.19 cm tall and base pair 0.07 cm, glabrous.

**Corolla:** edges revolute-reflexed, apex acute, outside glabrous, inside punctate, collar ciliate under the corona. Apex- center 0.14 cm.

**Corona:** lobes very upright with anthers showing in center. Inner apex spatulate sharply raised but anthers visible in center, channeled below but very short.



View of the flower and corona raised above the corolla. Outer lobe ends visible since the outer apical rara is raised. Crown sits above the surrounding corolla.



Pollinium with retinaculum twister on the axis.

### **Pollinium**

length	0.72 mm
widest	0.30 mm

### **Retinaculum**

length	0.33 mm
shoulder	0.25 mm
waist	0.23 mm
hip	0.34 mm
ext.	0.06 mm

### **Translators**



length 0.14 mm  
depth 0.05 mm

**Caudicle** bulb 0.10 mm

Same pollinarium with retinaculum twisted on the axis of the translators. More detail of the pollinium structure. The wide space at the base (lower side vacuole) is typical of the *Hoya australis* group.

**Caudicle:** Bulb C

**Pollinia:** inner ends R

**Retinacula:** S

**Translator/caudicle:** ls/o

## ***Hoya odorata* subsp. *loheri* Kloppenburg 2019**

***Hoya odorata* subsp *loheri* Kloppenburg**, holotypus UC #13860 hic designatus. Collected by A. Loher at Oriud, Rizal, Philippines, March 1914. Here the Pollinia are among the shortest for this sp. also in length, however the pedicel is longer 2.8 cm than the sp. type 2 cm, also the corolla diameter here is smaller 1.40 cm vs. 1.7 cm among other differences. See details following.

**Pedicel:** terete, glabrous, filamentous 2.8 cm long 0.05 cm in diameter.

**Calyx:** sepals 0.12 cm long, 0.07 cm at the widest, outer apex rounded, hyaline, one ligule seen.

**Ovaries:** long columnar, glabrous, 0.12 cm tall, base pair 0.07 cm.

**Corolla:** outside glabrous, densely pubescent inside, ciliate under corona. a short collar 0.05 cm tall.

Sinus – sinus	0.35 cm
Sinus – center	0.35 cm
Sinus – apex	0.50 cm
Apex – center	0.70 cm

**Corona:** glabrous, inner lobe raised sharply, outer lobe apex obtuse, channeled below, centrally a column. Dorsal is sway backed. Anthers showing in center above inner lobe apex.

Apex – apex	0.21 cm
Depth	0.10 cm
Inner apex- base	0.14 cm



Outside surface of the corolla. Details above.



Inside surface of the corolla. lobes deeply cut. Corona in the center.



Side view of the corona, inner lobes upright. Note the column center below.



Side view of a coronal scale. Described above.



Pollinarium enlarged about 165x.  
Pollinium long and narrow.

**Pollinium**

length	0.68 mm
widest	0.20 mm

**Pollinia inner end type: R**

**Retinacula type: S**

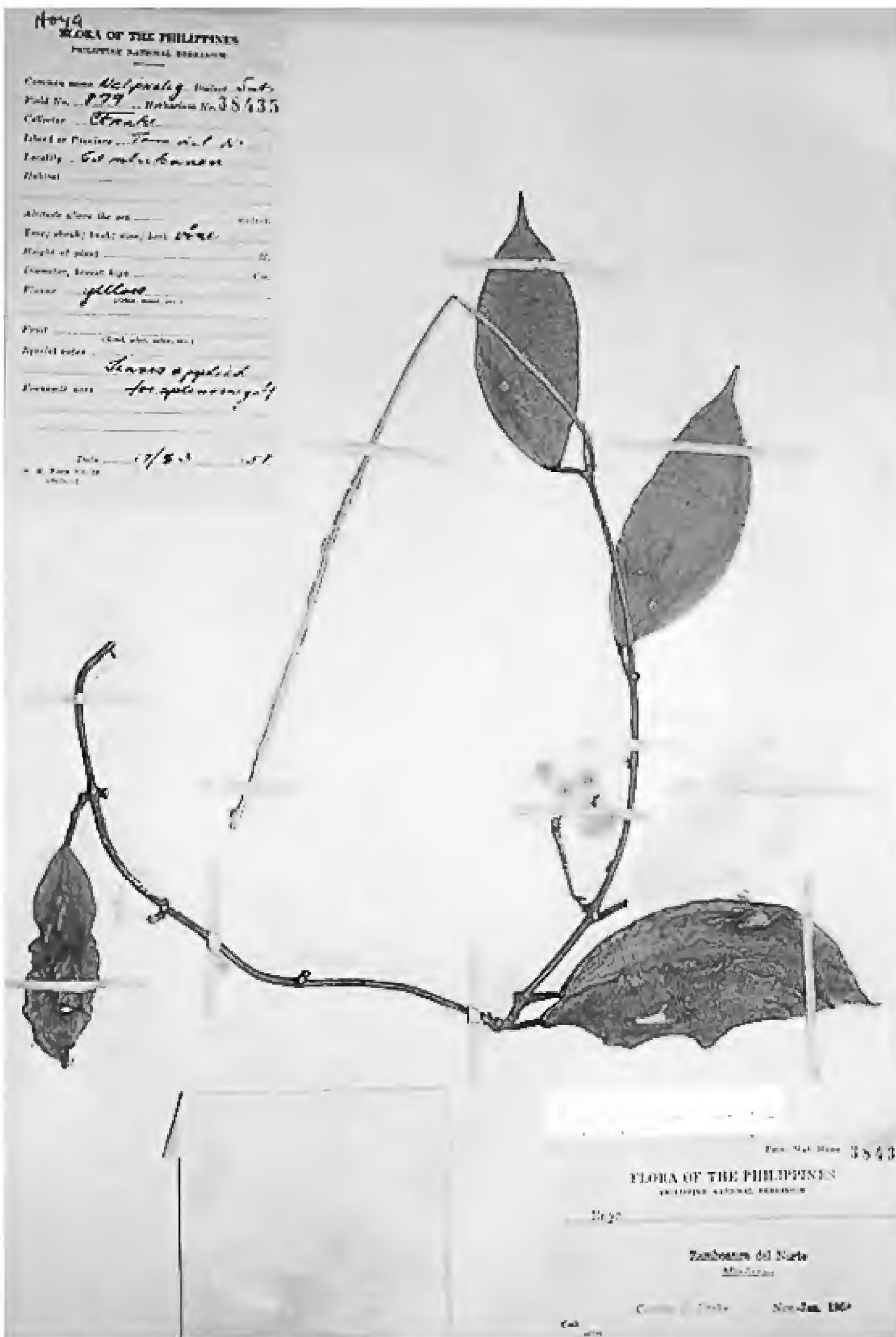
**Translator/caudicle type: ls/o**



Another view showing the retinacula as best as I could do.

The arrow scale is so blurry I can not give any precise measurements for the retinaculum. or the translators or caudicle.

# Hoya paziae subsp. montelbanensis Kloppenburg 2019



***Hoya paziae* subsp. *montelbanensis*** Kloppenburg subsp. nova, holotypus Schlechter UC #13176 hic designatus, collected at Montalban, Rizal, Luzon, Philippines 1913. This is similar to the species but smaller in most parts by 1/3. For example the pedicels here are 3 cm long vs. 2.5 cm Pollinia are 0.62 mm long vs. 0.78 mm. See details below.

**Pedicel:** 2 cm long, filamentous, glabrous.

**Calyx:** membranous, sepals 0.16 cm long and 0.08 wide at the base, apex acute, ligules present.



**Corolla:** lobe inside surface with a small portion of the crown showing. Enlarged about 8x. Outer surface glabrous, this inner surface punctate or minutely papillose. Corolla cut 4/5 of the length.

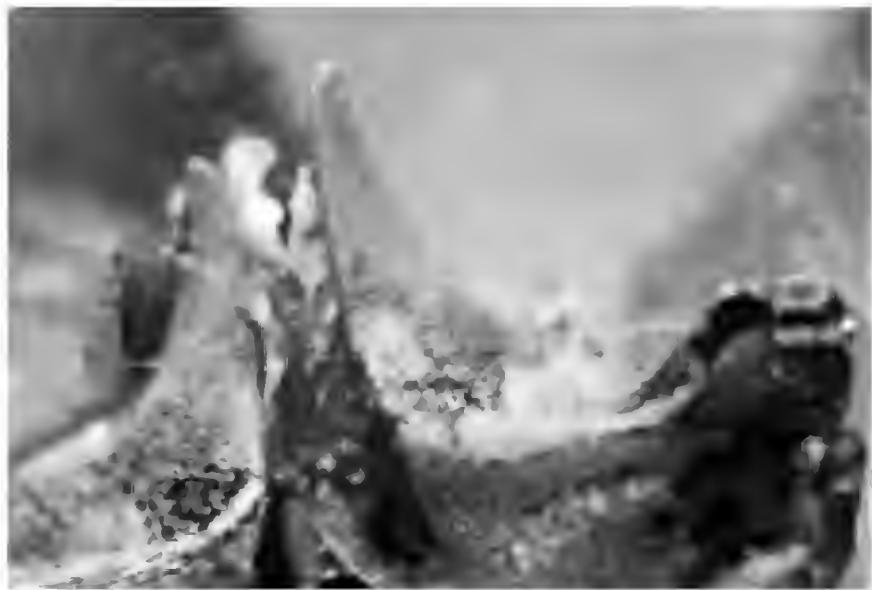
Sinus – apex	0.60 cm
Apex – center	0.80 cm
Widest	0.40 cm



Flower inside showing crown structure. Corona inner lobes upright with anthers still exposed. outer lobes obtuse, glabrous. Scales made up of 3 side plates at least when dry.

Apex – apex	0.20 cm
Inner apex – base	0.28 cm

Inner lobes pale cream outer lobe dark purple.



Central part of corona greatly enlarged to show the linear punctuations on the inner coronal lobe dorsal surface and how it arises above the anthers. Side of corona in three folds and outer apex raised rounded and also folded in this dry state (as Schlechter drew *H. eugenoides*).



Pollinium enlarged  
about 165x.

**Pollinium**

length	0.62 mm
widest	0.21 mm

**Retinaculum**

length ca. 0.28 mm

It appears the translators are very short. Note that the pellucid germinal edge extends all the way down the pollinia edge which is unusual.

**Pollinia inner end type: R**

**Retinacula type: S**

**Translator/caudicle type:  
ls/o**

## **Hoya bunuabgensis Kloppenburg 2019**

**Hoya bunuabgensis** Kloppenburg 2019, holotypus 28531 (B0) hic designatus. Named for the Mountain where it was collected May 1917 on Mt. Bunuabg, Tayabas, Luzon, Philippines by Ramos & Edano. This is published here to rectify the confusion with Dr. Schlechter's unpublished *Hoya intermedia*. Compilation of related publications follows below.

Leaflets of Philippine Botany (1938) 3574. A. D. E. Elmer. (under *H. angustifolia* Elmer). The foliage of our proposed new species similar to that of various specimens in the herbarium named **H. intermedia** Schltr. an unpublished species.

In Dr. Schlechter's *Hoya* Species (1993) 80-81. R. D. Kloppenburg. **Hoya intermedia** Schlechter (unpublished).

This name is mentioned by Dr. Schlechter in the type description of *H. incurvula* Schlechter and placed in the *Otostemma* section along with *H. halophila* Schlechter. These species do not belong to the *Otostemma* Section. They are in the *Acanthostemma* Section or a closely related section.

Dr. A. D. E. Elmer in Leaflets of Philippine Botany (1938) 3574 mentions in his description of *H. angustifolia* Elmer "The foliage of our proposed new species is very similar to that of various specimens in the herbarium named *Hoya intermedia* Schlechter an unpublished species".

Photos and data from 28531 (B0) labeled *Hoya intermedia* Schlechter collected May 917 on Mt. Bunuabg, Tayabas, Luzon, Philippines by Ramos & Edano. Film roll 170.

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Photos and data from The type sheet 28531 (B0) labeled *Hoya intermedia* Schlechter collected May 1917 on Mt. Bunuabg, Tayabas, Luzon, Philippines by Ramos & Edano. Film roll 170. Details from this sheet follow:

**Stems:** 0.02 cm. diam., rather rigid, nodes slightly enlarged to 0.35 cm. Internodes uniform except for clustering, glabrous,

**Leaf blades:** thin many in close clusters 6-10 cm. mostly 7.5 cm. long, glabrous, narrowly elliptic, thick base narrowing into petiole, apex acute long tapering to sub rounded. Waxy rounded leaf edge. Petiole 1-1.5 cm long, thin.

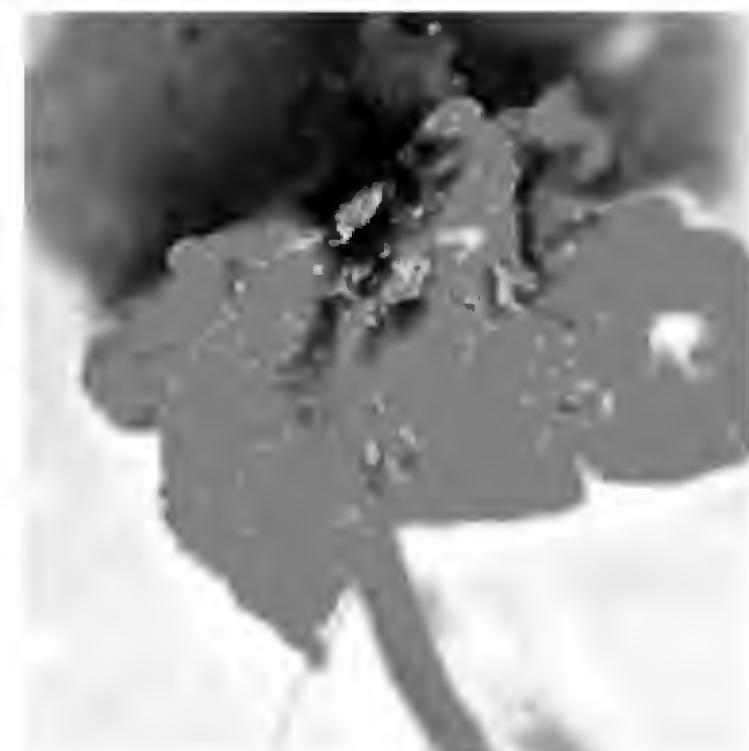
**Peduncle:** 4.5 cm. long, glabrous. Rachis cylindrical, fine bracteate.



**Pedicel, calyx with ovaries:** side view enlarged about 8x. Pedicel 1.7 cm. long, curved, glabrous.

**Calyx:** 0.1 x 0.07 cm.

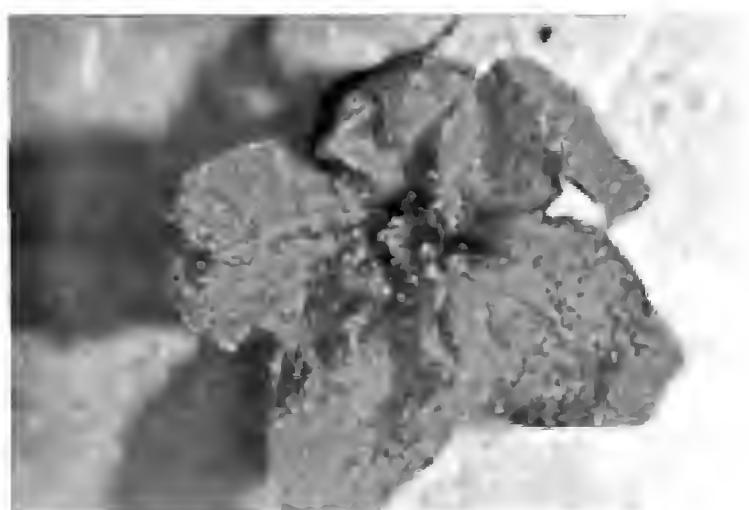
**Ovaries:** long narrow cone 0.10 cm. long and 0.06 cm at the base of pair.



View of a flower enlarged about 8x. This is a bilobed specie with upright corona and long bilobed extensions nearly reaching the corolla sinuses. Corolla inside pubescent, except apical area, and revolute.

Sinus – sinus	0.25 cm.
Sinus – center	0.22 cm.
Apex – center	0.51 cm.
Widest	0.28 cm.

A small collar 0.09 cm. long x 0.03 cm high.



Inside view of the corolla enlarged about 8x.



One more photo of the flower enlarged about 8x showing the long extended bilobes.

Apex – apex	0.25 cm.
Apex – center	0.25 cm.
Apex – end	0.31 cm.
Widest	0.09 cm.
Aw. – aw.	0.12 cm.

Inner apex is spatulate and covers the center, outer lobe is obtuse, bilobes are finely sulcate.

***Hoya intermedia* Schlechter # 28531 (BO) Reduced copy of the type sheet**



## **Hoya merrillii subsp. frakei Kloppenburg 2019**

**Hoya merrillii subsp. frakei** Kloppenburg subsp. nova, holotypus 38435 (PNH). Collected by Charles O. Frake at Zamboanga del Norte, Mindanao, Philippines, 17 March 1958. Like the species except for the short ovaries, calyx lobes here longer 0.15 cm vs. 0.1 long cm and Ret.:Poll. ratio different also leaf base not ovate. See following details.

**Stem:** 0.25 cm in diameter, internodes 2-8 cm or more long, glabrous.

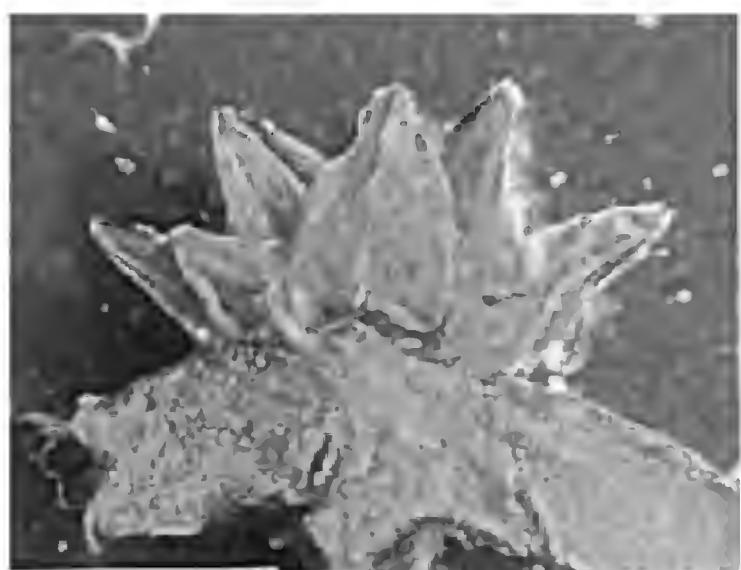
**Blade:** ca. 9 cm c 2-2.5 cm, glabrous, essentially palmate 5 nerved entire, undulant.

**Petiole:** 1-1.8 cm most 1 cm x 0.2 cm, does not appear grooved.

**Peduncle:** 2.5 cm x 0.2 cm Rachis a little enlarged.

**Pedicel:** 1.8 cm x 0.03 cm glabrous.

**Calyx:** 0.15 cm, ovate, glabrous  $\frac{1}{4}$  overlap.



Side view of the flower enlarged about 8x. Corolla inside pubescent outside glabrous, punctate, lobes are channeled below, outer lobes raised with acute apices. Flower color yellow.

Sinus – sinus	0.23 cm
Sinus – center	0.30 cm
Sinus – apex	0.35 cm
Apex – center	0.60 cm

**Corona:** glabrous, dorsal concave with a central ridge and forward umbo. Inner apex dentate. a short column below.

Apex – apex	0.30 cm
Apex – center	0.38 cm
Widest	0.15 cm



Pollinarium with scale below the object.

**Pollinium**

length	0.45 mm
widest	0.17 mm

**Retinaculum**

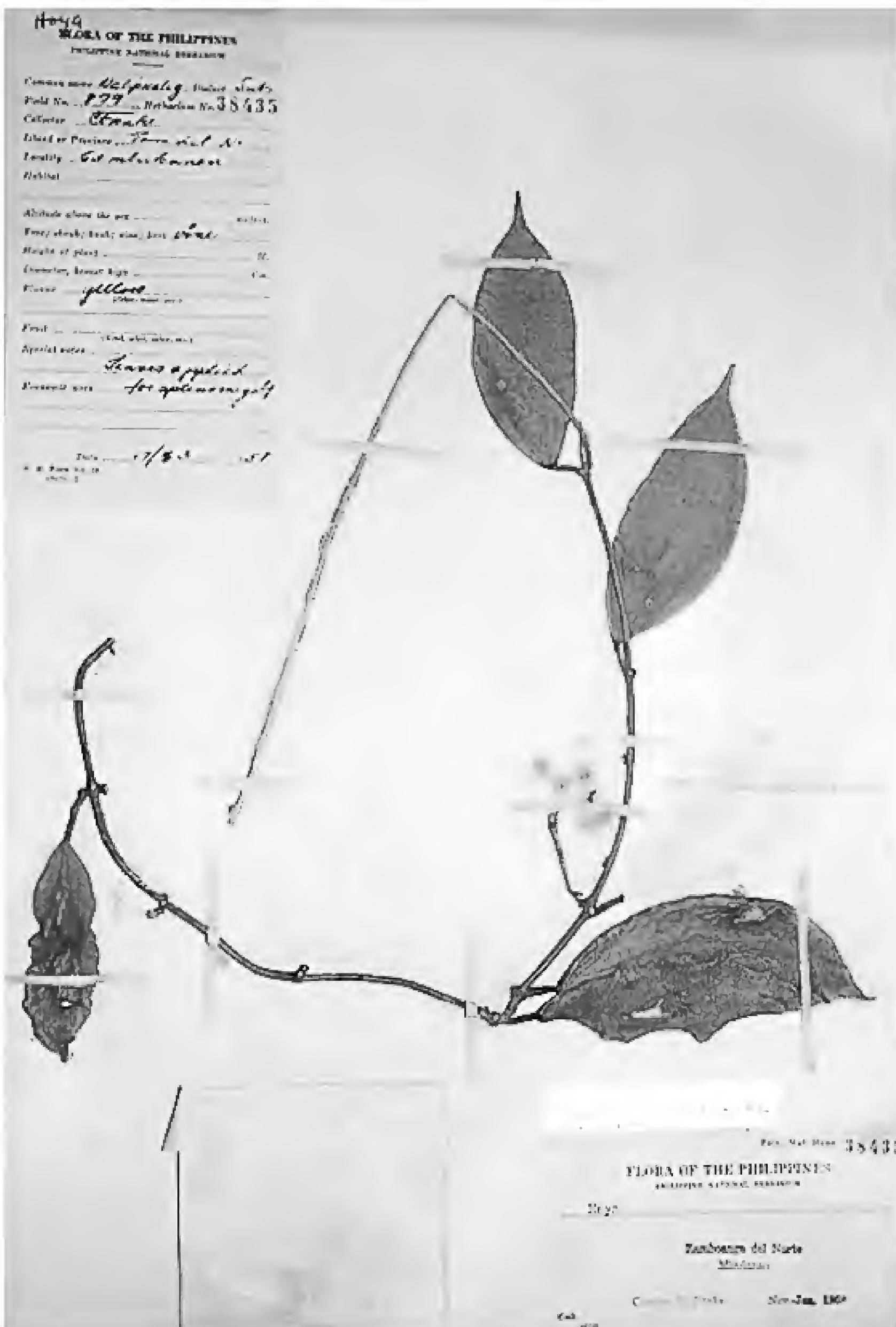
length	0.16 mm
shoulder	0.16 mm
waist	0.06 mm
hip	0.11 mm
ext.	0.05 mm

**Retinacula type:** S (shield).

**Translator/caudicle type:** ls/o

**Pollinia inner ends:** T (tapered)

## A reduced copy of the type sheet



## ***Hoya mindorensis* subsp. *dinagatensis* Kloppenburg 2019**

***Hoya mindorensis* subsp. *dinagatensis*** Kloppenburg subsp. nova, holotypus PNH 4747 hic designatus. This new subspecies was collected by Geerlan, Sagcal & Fernando at Dinagat, Mindanao 1/10/91. The subsp. differs from the sp. in that the leaves are smaller ovate-elliptic 6 – 7 x 3 – 4 cm base broadly round (obtuse). Apex narrow to subacute, yellow-green with brown splotches, glabrous, nerves 4 pairs pinnate, undulate vs. loosely leaved, with the leaves outspread or spreading, oblanceolate-elliptic, shortly acuminate, glabrous, leathery textured 9-12 cm long, above the middle 3.5-4.5 cm wide and the petioles are much shorter and grooved 0.7 cm glabrous versus 2-2.5 cm long, and the peduncles are here 4 cm x 0.3 cm in diameter versus about 2 cm long and the pedicels here are 1.60 x 0.05 cm strict, vs. 1.5 x 1.5 cm among other differences. See the following photos and measurements:

**Stems:** Heavy 0.3 cm nodes somewhat enlarged 0.5 cm in diameter, internodes 9 – 14 cm glabrous.

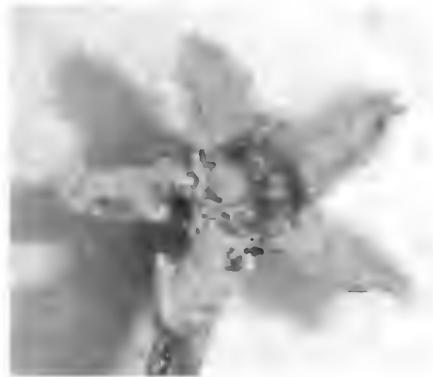
**Blade:** ovate-elliptic 6 – 7 x 3 – 4 cm base broadly round (obtuse) Apex narrow to subacute, yellow-green with brown splotches, glabrous, nerves 4 pairs pinnate, undulate.

**Petiole:** 0.7 cm glabrous, channeled above strict to slight curved.

**Peduncle:** 4 cm x 0.3 cm in diameter, glabrous curved, very stout.

**Rachis:** large 0.5 cm in diameter.

**Pedicel:** 1.60 x 0.05 cm strict, glabrous, 20 – 30. A globose cluster.



**Calyx:** large 0.19 x 0.13 cm outside granulose overlap at base ca. 1/8, edges jagged to ciliate, did not see ligules.

**Corolla:** eaten by buprestids, dry tough. Yellow-orange. outer surface glabrous.

Sinus – sinus	0.38 cm
Sinus – apex	0.40 cm
Apex - center	0.54 cm

**Corona:** slightly exceeds the corolla sinuses, strong distinct keel on dorsal surface. Inner apex acute, outer apex acute color red.

Apex – apex	0.41 cm
Widest	0.14 cm



Photo of outside of the flower with pedicel attached enlarged about 8x. Pedicel enlarged at the calyx base, sepals ovate-obtuse, thickened in the center, surface granulose do not reach the corolla sinuses.



Corona top view enlarged about 16x. Lobes seem to be keeled as with *Hoya mindorensis* but it is difficult to tell from this photo.



Top view of an individual coronal scale showing that it is truly keeled and undoubtedly a subsp. of the species *Hoya mindorensis* Schlechter.

## ***Hoya mindorensis* subsp. *bulusanensis* Kloppenburg 2019**

***Hoya mindorensis* subsp. *bulusanensis*** Kloppenburg, subsp. nova, holotypus PNH 2792 hic designatus. Collected by M. D. Sulit at Mt. Bulusan, Sorsegon, Luzon, Philippines 9 Aug. 1947. Collected epiphytic on a big *Erythrina subumbrans* tree, This new subspecies differs from the species and other subspecies in several respects. The deep purple corolla color is distinctive, also the rachis being bracteate is unusual. The minutely puberulous calyx exterior is also distinctive. Many part measurements are distinct. See below:

**Stems:** Heavy 0.3 cm, in diameter, glabrous, nodes enlarged. Internodes 3-12 cm

Leaf blade 4.4 – 7 cm long x 2.5 – 3.5 cm wide, glabrous, enervis, edge entire some undulation.

**Petiole:** ca. 0.5 cm long, glabrous.

**Peduncle:** smaller than stem 0.15 – 0.02 cm 1.5 cm long enlarged at the stem end.



**Rachis:** enlarged circular, bracteate, ca, 1 cm long x 0.35 cm in diameter.



**Calyx:** enlarged about 8x. Sepals are 0.21 x 0.15 cm, minutely puberulous overlap about 10%.

**Ovaries:** columnar, glabrous 0.14 cm tall, base pair 0.09 cm

**Corolla:** deep purple inside with the lower half downy (with very short hairs), with the lobes felt like, sparsely hispid (stiff hairs), ovate, rather obtuse, with the base on both sides obtusely eared, with the tip furnished with an ear like appendage, and reflexed.

Sinus – sinus	0.30 cm,
Sinus – apex	0.30 cm
Apex – center	0.56 cm or smaller

Collar prominent. Collar of corona 0.08 cm tall and 0.15 cm in diameter



Top view of the flower enlarged about 8x. It appears that the coronal lobes appear here to slope outward and the center of the flower anthers are exposed. Dorsal is strongly keeled.

Apex – apex	0.38 cm
Widest	0.17 cm

**Stylar head:** pyramidal (5 sides) with ruffled head.

**Follicles:** in pairs elongate.

**Pollinarium:** Retinaculum 0.30 mm long widest 0.185 mm Wide and distinctive.

## A reduced copy of the type sheet

